

On the Motion of the Ions and the Profile of the
Spark Lines in the Positive Column of a Discharge,
II. Radial Motion of the Ions in a Low Pressure
Discharge, by Yu. M. Kagan, V. I. Perel, 13 pp.

RUSSIAN, per, Optika i Spetroskopiya, Vol IV,
1958, pp 3- 8.

AEC Wp-113

Sci - Phys

Oct 58

74, 467

Dependence of the Quenching of Fluorescence
in Solutions by Absorbing Substances on the
Viscosity of the Solvent, by L. A. Kuznetsova,
B. Ya. Sveshnikov, 7 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 1, 1958, p 55. 9097048

AEC Tr-4804

Sci - Phys
Apr 62

189,962

On Polarized Luminescence of Colored Crystals,
by V. L. Vinetskiy, M. F. Daygen, 7 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol 4,
No 1, 1958, pp 60-65.
AIR/FTD/HT-23-1288-67 AD 679 711

Sci-Phys
Feb 69

372.978

Preparation of Infrared Transmitting Films, by Z. V. Shirokashina, N. V. Suykovskaya, 8 pp.

RUSSIAN, per, Optika i Spektros, Vol IV, No 1, 1958, pp 82-85.

SIA 59-15025

Sci. Physics
Sep 59
Vol II, No 2,

98, 6 77

Incandescent Lamp With Mica Window for the Infrared
Region of the Spectrum, by Ye. N. Maleyev, *2 pp.*

RUSSIAN, per, Optika i Spektro, Vol IV, No 1,
1958, pp 121-122.

✓*ACSI I-8301
ID 2224781

Sci - Phys
5 Mar 63

Mott Exciton Theory in Alkali Halide,
Crystals, by S. A. Moskalenko, 11 pp.

RUSSIAN, par, Optika i Spektroskopiya,
Vol V, No 2, 1958, pp 147-155.

ATB-27M39R

Sci
Mar 62
Vol IV, No 2

189,305

On a Method of Quantitative Gas Analysis by Electron-
Vibrational Spectra of Diatomic Molecules,
by L. V. Leskov, 21 pp.
RUSSIAN, per, Optika i Spektro,, Vol IV, No 2, 1958,
pp 168-179. 9226254
AEC-NP-Tr-1189

Sci-Chem
Jan 65

271,801

Infrared Spectral Transmittance of Porous and
Quartzoid Glasses, by N. A. Sevchenko, V. A.
Florinskaya, 9 pp.

RUSSIAN, per, Optika i Spektroskopiya SSR, Vol. IV,
No 2, 1958, pp 189-195.

SIA 59-10914

Sci - Chem
Sep 59
Vol 2, No 1

NLL 11.2584

97,783

On the Quenching of luminescence of Organic
Substances Upon Excitation by α -Particles,
by M. D. Galanin, Z. A. Chizhikova, 8 pp.

RUSSIAN, par, Optika i Spektroskopiya, Vol IV,
1958, pp 196-202.

AEC Tr 3549

Sci - Phys
Mar 59

82,887

Multilayer Dielectric Coatings With a High Coefficient
of Reflectance on Glass Surfaces, by T. N. Krylova,
12 pp.

RUSSIAN, per, Optika i Spektroskopiya SSR, Vol IV,
No 2, 1958, pp 217-224.

SLA 59-10913

Sci - ~~Chem~~
Sep 59
Vol 2, No 1

NLL 10.1.58

97782

Theoretical Investigations of the Behavior of
Luminescent Radiation of Dispersed Luminescent
Particles, by A. P. Ivanov, 17 pp.

RUSSIAN, per, Optika i Spetroskopiya USSR,
Vol IV, No 2, 1958, pp 225-235.

SLA 59-15022

Sci - Physics
Sep 59
Vol II, No 2

NLL M.2522

98 675
XX-729

Experimental Investigation of the Laws of
Luminescence of Disperse Luminescent Objects,
by A. P. Ivanov,

RUSSIAN, per, Optika i Spektro, Vol IV, No 2,
1958, pp 236-244.

*TIL T-5128

Sci - Phys

Jul 60

The Connection Between the Real and Practical
Yields of Luminescence of Infinitely Thick
Light-Diffusing Layers, by A. P. Ivanov, S. M.
Mosunova,

RUSSIAN, per, Optika i Spektro, Vol IV, No 2,
1958, pp 245-251.

*TIL T-5127

Sci - Phys

Jul 60

Reflection Spectra of Quartz Crystal Plates Cut
at Different Angles to the Optical Axis Within
the 7-24 Wavelength Range, by N. A. Sevchenko,
V. A. Florinskaya, 6 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 2, 1958, pp 261-264.

SLA 59-15026

Sci

Dec 59

Vol 2, No 4

NLL ML2521

103,084

Optical Monocrystals of Strontium and Barium Fluorides,
by I. V. Stapanov, I. A. Sinyukova, E. G. Chernetskaya,
6 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 2, 1958, pp 272-274.

UBASIA Tr-1138

Eci - Chem
Apr 61

144, 926

A Method of Measuring the Reflection Coefficient
of Mirrors, by R. B. Tagirov, 3 pp.

RUSSIAN, par, Optika i Spektro, Vol IV, No 2,
1958, pp 278, 279.

SLA 59-10912

NLL 11 2580

Sci - Physics
Sep 59
Vol II, No 2

XX-998

98,680

Possibility of Using Pulse Lamps for Studying
the Relaxations of Luminescence and Photocon-
ductivity, by N. A. Tolstoy, 4 pp.

RUSSIAN, per, Optika i Spektroskopiya, USSR,
Vol. IV, No 2, 1958, pp 279-281.

SLA 59-10911

NLL M. 2519

Sci - Physics
Sep 59
Vol. II, No 2

98672

On the Motion of Ions and the Shape of Their
Lines in the Positive Discharge Column, III. A
Directed Motion of Ions in a Discharge at
Arbitrary Pressure, by Yu. M. Ragan, V. I. Perel,
6 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 3, 1958, pp 265-268.

AEC HP-124

Sci - Nuc Phys

Oct 58

74, 476

Changes in the Infrared Spectra of Molecules
During Their Interaction With Adsorption Centres
of Aluminium Silicate Catalysts, by L. M. Royev,
V. H. Filimonov, A. M. Terenin, 8 pp.

RUSSIAN, per, Optika i Spektro, Vol IV, No 3,
1958, pp 328-335. 9075606

ATS 29128R

15.11.202

Sci - Phys
May 59
OTS I, 8

87,454

Luminescence of Cadmium Sulfide Crystals, by V. A.
Yeremenko, 11 p.

RUSSIAN, per, Optika i Spektroskopiya, 1958, Vol IX,
No 3, pp 348-353.

SLA 59-20836

NLL M. 2473

Sci

Mar 60

Vol 3, No 1

111,028

New Data Regarding the Excitation Functions of
Holium Lines, by S. E. Frish, V. E. Yakhontova.
UNCL.

RUSSIAN, per, Optika i Spektre, Vol IV, No 3.
1958, pp 402-406.

1/22/77
DATA 35007/CI

Sci - Phys
Apr 59

62-13146

85,077

A Low-Voltage Vacuum Pulsed Discharge for
Exciting Spectra, by F. E. Fedos, N. S.
Sventitskiy. UGOL

RUSSIAN, per, Optika i Spektro, Vol IV, No 3,
1958, pp 407-409.

CIA 60-23-127
DSIR 34997/OT

Sci - Phys
Apr 59

85,078

Duration of Photoluminescence of Alkali-Halide
Crystals or Activated Tl or In, by I. K. Plyavin,
5 pp.

RUSSIAN, per, Optika i Spektroskopiya, No 4,
1958, pp 266-268.

ARM/RSIC/Tr-911-69

Sci/Phy
May 69

377,464

Determination of the Degree of Non-Uniformity in DC
and AC Arc Discharges, by I. V. Dvornikova, I. M. ~~KAGAN~~
Nagibina.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 421-429.

*PL-480

Sci
Jul 63

Nagibina, I. M.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 430-437.

*PL-480
OTS 63-11135
PST-896

Sci

Dec 62

Dianov-Klokov, V.I.
SPECTRE D'ABSORPTION DE L'OXYGÈNE LIQUIDE
DANS L'INTERVALLE DE TEMPÉRATURE 77-153° K
(12600-3300 Å) (Absorption Spectrum of Liquid
Oxygen in the 12600-3300 Å Region in the Temperature
Range 77-153°K). 20p. (foreign text included, but
illegible). 23refs. CNRS-XXVIII 48.
Order from OTS, ETC or CNRS \$0.80 TT-62-28585

Trans. in French of *Optika i Spektroskopiya* (USSR)
1958, v.4, no.4, p.448-454.

DESCRIPTORS: *Oxygen, Liquefied gases, *Absorption
spectrum, Spectrophotometers, Complex compounds.

(Physics--Spectroscopy, TT, v. 11, no. 9)

TT-62-28585

I. Dianov-Klokov, V.I.
II. CNRS-XXVIII 48
III. Centre National de la Recherche Scientifique, Paris

Office of Technical Services
European Translation Centre

The Dependence of the Absorption of Infrared
Radiation by Water Vapor on Concentration
and Path Length in the Case of Singel Lines
and Groups of Lines in the Band, by K. P.
Vasilevskiy, B. S. Reporent, 13 pp.

RUSSIAN, per, Optika i Spektroskopiya,
Vol IV, No 4, 1958, pp 474-480.

SLA 60-23517

Sci
Vol IV, No 7
May 62

193, 678

Distribution of Light Energy Changed in the Diffraction
Pattern by Variable Transmittance Filters, by G. G.
Elyushev, N. I. Kulikovskaya, 13 pp.

RUSSIAN, par, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 486-493.

CIA/PID KX-680

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Physics
Ser 59

ALL INFORMATION

NSIB INTERNAL USE ONLY

98,062

Microwave Spectrum and Rotational Constants, of
The C_2H_5Cl Molecule, by A. I. Barchukov, T. M.
Murina, A. N. Prokhorov, 2 p.

RUSSIAN, per, Opt 1 Spekt. 1958, Vol IV, No 4,
pp 521-523.

SIA 59-20860

Sci
Mar 60
Vol 3, No 1

111,023

Investigation of Powerful Pulse Discharge With
Limited Channel Diameter, by N. M. Ogurtsov, I. V.
Podmoshenskiy, 12 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, 1958,
pp 539-541.

Sci - Phys
Oct 61

List 60

ABC UURL-Trans-445
(LDAN) NLL R.F. 0578.9 1963 (1372)
171, 218

A.C.C.H. 20 1372
9210554

Radiospectroscopic Studies Of CH_3GeCl_3 by N.A. Irisova.

RUSSIAN, per, Optika I Spektroskopiya, Vol IV, No 4, 1958, pp 543-546.

CSIRO Tr 4171.

Oct. 62

(2436-D)

XXI X

On The Excitonic States of a Molecular Crystal
Containing Different Molecules, by A. F.
Lubchenko, E. I. Rashba, 12 pp.

RUSSIAN, per, Optika i Spektroskopiya Vol IV,
No 5, Leningrad, 1958, pp 580-585.

US JPRS 523-1)

Sci - Physics
Feb 59

81,792

(2436-D)

On the Capture of "Free Excitons by Impurities in
Molecular Crystals, by V. M. Agranovich, 15 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 5,
Leningrad, 1958, pp 586-594.

US JPRS 524-D

Sci - Physics
Feb 59

81, 791

Zeeman Effect of Anisotropic Centers in a
Cubic Crystal Lattice, by V. A. Arkhangel'skaya.
P. P. Feofilov, 20 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 5, 1958, pp 602-619.

ATS-21M39R
ATS/RJ-2614

Sci

188, 069

Vol 4, No 1
Mar 62

61-20484

Shpol'skii, E. V. and Girdzhlyauskalte, E. A.
LUMINESCENCE AND ABSORPTION OF PYRENE
AND 3,4-BENZOPYRENE IN FROZEN SOLUTIONS
OF NORMAL PARAFFINS. [1961] 24p. 11 refs.
Order from SLA \$2.60

61-20484

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 4
[no. 5] p. 620-630.

DESCRIPTORS: *Hydrocarbons, Benzoyl radicals,
Solidified gases, Luminescence, Absorption,
Spectrographic analysis, Optics, Fluorescence.

The luminescence spectra and the long-wave portion of
the absorption spectra of pyrene and 3,4-benzopyrene
in solutions of normal paraffinic hydrocarbons from
n-pentane to n-decane have been studied at the temper-
ature of liquid nitrogen. It was shown that under these
conditions the spectra exhibit a linear fine structure
(Physics--Spectroscopy, TT, v. 7, no. 5) (over)

I. Shpol'skii, E. V.
II. Girdzhlyauskalte, E. A.

K-H 9681-6

Negative copy loan
from OTS
Office of Technical Services

The Absorption and Luminescence Spectra of Nickel-Activated ~~alkali~~ Alkali Halide Crystals, by M. Kats, B. M. Zemenov, 10 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 5, 1958, pp 637-642.

CIA/EDD XX-683

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Physics
Sep 59

NLL M. 245

98,065

USIS INTERNAL USE ONLY

The Reflection of Light by a System of Thin
Film Applied to an Opaque Metal Layer, by M. N.
Validov.

RUSSIAN, per, Optika i Spektroskopija, Vol IV, No 5,
1958, pp 651-657.

NLL M. 2952

Sci - Phys

Dec 61

511
177, ~~507~~

Interaction Between Electrons and the Activation in
NaCl-Ni and NaCl-Cu Phosphors, by I. A.
Pariyanovich.

RUSSIAN, par, Optika i Spektro, Vol IV, No 5,
1958, pp 692-695.

NLL M. 2431

Sci - Chem

173,883

Nov 61

FORMATION OF Luminescence and the Nature of
Luminescent Centers in NaCl-Ag and KCl-Tl Crystals,
by L. I. Tarasova, P. P. Feofilov, 4 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 3, 1958, pp 696-697.

CIA/PDD XX-677

NOT RELEASABLE TO FOREIGN NATIONALS

NLL 11-1-59

Sci - Physics

Sep 48 59

98,060

USIB INTERNAL USE ONLY

Order from LC or SCA 59-15721

TT-62-28781

Sverdlov, L.M.
THÉORIE DES INTENSITÉS DES RAIES DE SPEC-
TRES INFRAROUGES DE L'ÉTHYLENE ET DU TÉ-
TRADENTÉRO-ÉTHYLENE (Teoriya Intensivnostei
v Infrakrasnykh Spektrakh Etilena i Tetradeitéro-
etilena) (Theory of Intensities in the Infrared Spectra
of Ethylene and Tetradenterioethylene). 14p. (foreign
text included) 7 refs, CNRS-VIII 110.
Order from OTS, ETC or CNRS \$1.60 TT-62-28781

Trans. in French of Optika i Spektroskopiya (USSR)
1958, v.4, no.5, p.697-701.

DESCRIPTORS: *Ethylenes, Deuterium, Infrared
spectroscopy, *Spectra (Infrared), Intensity

(Physics--Spectroscopy, TT, v. 1, no. 9)

- I. Sverdlov, L.M.
- II. CNRS-VIII 110
- III. Centre National de la Recher-
che Scientifique, Paris

Office of Technical Services
European Translations Centre

Determination de la Composition Isotopique
D'Apres les Spectres D'Adsorption, (Determination
of the Isotopic Composition from the Adsorption
Spectra), by A. N. Zaidel, 4 pp.

RUSSIAN to FRENCH, per, Optika i Spektroskopiya,
Vol IV, 1958, pp 701, 702.

Reverse Trans
CEA Tr R-687

Sep 59

97,452

70-13396-07D

Demkov, Yu. N.; Nelgauz, M. G.; Senyukov, R. V.
GROUND-STATE ENERGY OF He. Optika i Spektros-
kopiya, v. 4, p. 709-711, 1958. ANL-TRANS-248.
Order from NTC as 70-13396-07D: HC \$ 6.70, MF \$ 5.80.

Comparative Investigations of the Metrological
Qualities of the Spectral Lines of Pb^{20} and
 Cd^{114} , by M. R. Batarchukova. UNCL

RUSSIAN, per, Optika i Spetroskopiya, Vol IV,
No 1, 1958, pp 712, 713.

DSIR LLU RTS 1.001
5s.0d.

Sci - Phys
May 59

87, 896

Determining the Degree of Heterogeneity
of a DC and AC Arc Discharge,
by I. V. Dvornikova, I. M. Nagibina, 16 pp.
RUSSIAN, per, Optika i Spektroskopiya,
Vol IV, No 4, 1958, pp 421-429. 7697292
FTD-TT-64-1138

Sci-Elec
Jul 65

253,543

61-23378

Validov, M. A.
THE REFLECTION OF LIGHT BY A SYSTEM OF
THIN FILM APPLIED TO AN OPAQUE METAL
LAYER (Otrazhenie Sveta Sistemoi Tonkikh Plenok
Nanesennikh na Neprozrachnyi Metallicheski Sloi) tr.
by L. Meyer. [1961] [9]p. 7 refs. S. M. R. E. Trans.
no. 4375; [DSIR LLU] M. 2952.
Order from OTS or SLA \$1.10

61-23378

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 4,
no. 5, p. 651-657.

DESCRIPTORS: *Mirrors, *Dielectric films, *Light,
Reflection, Thin films, Metal films

It is shown how A. G. Vlasov's mathematical theory
can be used for calculation of the reflection of light
from metal mirrors covered with layers of dielectric
material. Equations are given for the calculation of
(Physics--Optics, TT, v. 6, no. 9) (over)

- I. Validov, M. A.
- II. SMRE Trans-4375
- III. DSIR LLU M. 2952
- IV. Safety in Mines Research Establishment
(Gt. Brit.)

15538

Office of Technical Services

Run Energy of the Normal State of He, by
Yu. N. Demkov, et al.
~~CHN~~, per, Optika i Spektroskopiya,
Vol 4, No 6, 1958, pp 709-714.
*AEC
EDC-30 Jan 1966

Sci/MQM
Nov 65

On the Measurement of Lifetimes of the Levels 3^3P
and 3^1P of Helium Atoms by the Method of Delayed
Coincidences, by A. L. Osherovich, I. G. Savich,
7 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 715-718. 9093263

AEC UCRL Tr-767(L)

Sci - Nuc Phys
Apr 62

190,388

Ostrovskiy & Penkin

RUSSIAN, per, Optika i Spektroskopia, Vol Iv, No. 6,
1958, pp. 719-724.

*PL 480
OTS 61-11437

Dec 61

Stepanov, B. I. and Prima, A. M.
THE VIBRATIONAL SPECTRA OF SILICATES. I.
THE COMPUTATION OF FREQUENCIES AND IN-
TENSITIES OF THE SPECTRAL BANDS OF THE
SILICATES. [1961] [28]p. 22 refs.
Order from LC or SLA ml\$2.70, ph\$4.80 61-10906

Trans. of Optika i Spektroskopiya (USSR) 1958,
v. 4 [no. 6] p. 734-749.

New secular equations expressing the frequencies,
forms of the normal vibration, intensities, and polari-
zation of the vibrational lines of the crystals are de-
rived for pyroxenes, crystals with layers of SiO_4 tetra-
hydra, beta-quartz, and beta-cristobalite. (See also
61-10906)

(Physics--Spectroscopy, TT, v. 5, no. 11)

61-10906

1. Silicates--Spectra
 2. Glass--Spectra
 3. Raman spectra--Analysis
 4. Infrared spectra--Analysis
- I. Stepanov, B. I.
II. Prima, A. M.
III. Title: Computation...

108900

Office of Technical Services

On the Causes for the Dependence of the Luminescence
Yield of Organic Substances on the Energy of the
Ionizing Particles, by M. D. Galanin, 7 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 758-762.

ABC Tr 3506

Sci - Phys
Feb 59

81,309

Diffraction Gratings From the State Optical
Institute, by P. M. Gerasimov, et al. UECL

RUSSIAN, per, Optika i Spektro, Vol IV, No 6,
1958, pp 779-790.

DSIR LIU KPS 1005
LI 10a.0d.

Sci - Phys
May 59

87, 881

Plates for VAcuum Ultraviolet Photography, by
I. R. Protas, 5 pp.

RUSSIAN, Per, Optika i Spektroskopiya, 1958,
Vol. IV, No 6, pp 803-805.

LC or SLA 59-15263

Sci
Nov 59
Vol 2, No 3

NLL 11-1-59

101, 344

61-20836

Sidorov, T. A. and Sobolev, N. N.
INFRARED AND COMBINATION SPECTRA OF BORIC
ANHYDRIDE. III. INTERPRETATION OF VIBRATION
SPECTRUM OF BORIC ANHYDRIDE AND CAL-
CULATION OF ISOTOPIC EFFECT (Infrakrasnyi i
Kombinatsionnyi Spektiry Bornogo Angidrida.
III. Interpretatsiya Kolebatel'nogo Spektra Bornogo
Angidrida i Raschet Izotopicheskogo Effekta). [1961]
[22 p. foreign text included] 13 refs.
Order from OTS or SLA \$2.60 61-20836

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 4,
no. 1, p. 9-16.
Other translations are available from OTS or SLA
\$1.60 as 61-19735 [1961] [13]p. and LC or SLA
mi\$2.40, ph\$3.30 as 60-17905, CTS-591, Dec 58 [17]p.

DESCRIPTORS: *Anhydrides, *Boric acids, *Infrared
spectroscopy, Molecular structure, Valence, Polari-
zation, *Molecular spectroscopy, Molecular associ-
(Physics-Spectroscopy, TT, v. 7, no. 3) (over)

I. Sidorov, T. A.
II. Sobolev, N. N.
III. Title: Interpretation ...

Office of Technical Services

Determination of the Degree of Inhomogeneity in
D-C and A-C Arc Discharges, by I. V. Dvornikova,
I. M. Nagibina, 12 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 421-429.
OTS 63-11135
PL-480

Sci - Phys
Mar 64

253,038

Determination of the Concentration of Atoms in the
Plasma of an A-C Arc From Line Widths, by
I. M. Nagibina, 8 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 430-437.
OTS 63-11135
PL-480

Sci - Phys
Mar 64

253,039

Ground-State Energy of He, by Yu. N. Demkov,
M. G. Neigauz, et al.
RUSSIAN, per, Optika i Spektroskop. Vol IV, No 6,
1958, pp 709-714. 9231899
AEC-ANL-Tr-248

Sci - Chem
Feb 66

295,467

61-10906

Stepanov, B. I. and Prima, A. M.
THE VIBRATIONAL SPECTRA OF SILICATES. II.
INTERPRETATION OF THE SPECTRA OF GLASSES.
[1961] [22]p. 15 refs.
Order from LC or SLA ml\$2.70, ph\$4.80 61-10906

Trans. of Optika i Spektroskopiya (USSR) 1958,
v. 5 [no. 1] p. 15-22.

Previously derived equations (Optika i Spektroskopiya
4: 734-749, 1958; available in translation from LC or
SLA ml\$2.70, ph\$4.80 as 61-10905) are used to calcu-
late the vibrational spectra of silicate crystals and to
interpret the Raman and IR spectra of the silicate
glasses and several crystals. The spectra of meta-
silicate and bi-silicate are qualitatively different. The
spectrum of glasses of the bi-silicate composition sug-
gest the existence in glass of the elements of layers
composed of SiO_4 tetrahedra. The crystals with chemi-
cal composition equivalent to that of bi-silicate possess
the layers of SiO_4 tetrahedra.
(Physics--Spectroscopy, TT. v. 5, no. 11)

1. Silicates--Spectra
2. Glass--Spectra
3. Raman spectra--Analysis
4. Infrared spectra--Analysis
- I. Stepanov, B. I.
- II. Prima, A. M.
- III. Title: Interpretation...

10906

Office of Technical Services

S-13/60a

(DC-3345).

Anomalous Variations of the Intensity of
Samarium Spectrum Lines in A D.C. Arc, by
R. R. Shvangiradze, 3 pp.

RUSSIAN, per, Optika i Spektro, Vol V, No 1,
Moscow/Leningrad, 1958, pp 88-90.

JPRS 3343

Sci - Phys
Jun 60

117,223

00/C-1184

(DC-2286)

Spectra of Electron Paramagnetic Resonance of
Cr-Aromatic Compounds With Various Substitutes,
by V. V. Voyevodskiy, Yu. N. Molin, V. M. Chibrikin,

RUSSIAN, per, Optika i Spektroskopiya, Vol V, 1958,
pp 90-92.

✓
*US JPRS

Sci - Chem

Oct 58

A Simplified Method of Spectral Analysis of
Inert Gases for Purity, by O. P. Kochkova, L. P.
Sazunovskaya, S. E. Frish, 5 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol V, 1958,
pp 93, 94.

AERE Tr 11/3/5/1165

Sci - Phys

May 59

86,168

Resolving Power of Optical Systems Increased, by
K. D. Simech'nikov, A. M. Ryazanov, 11 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol V, No 2,
1958, pp 184-190.

CIA/FDD XX-658

NOT RELEASABLE TO FOREIGN NATIONALS

NLL 11.2497

Sci - Physics

Sep 59

USIB INTERNAL USE ONLY

98,048

Gurvich

RUSSIAN, per, Optika i Spektroskopia, Vol. V, No. 2,
1958, pp. 205-207.

*PL 480
OTS 61-11437

Dec 61

Theory of Non-Radiative Transitions in an F-Center,
by V. A. Kovarskiy,

RUSSIAN, per, Optika i Spektroskopiya, Vol V, No 2,
1958, pp 222-224.

ATS RJ-2195

Sci - Physics

May 60

115,455

Multiplet Splitting of the Ground Term of the
Holmium Atom, by V. B. Belyanin. UNCLASSIFIED

RUSSIAN, per: Optika i Spektroskopiya, Vol V,
No 3, 1958, pp 236-238. 9576675 9669629

Navy 2248/MRL 702

AEC Tr-5321

Sci - Physics
Aug 59

95.434

Babushkin, A. A., Gribov, L. A. and others.
STRUCTURE OF MOLECULAR COMPOUNDS OF
BORON TRIFLUORIDE WITH METHANOL, ETHANOL,
AND WATER. Pt. 2 of Investigation of Vibration
Spectra of Molecular Compounds of Boron Trifluoride
with Nitrogen and Oxygen-Containing Substances. [1962]

9p.

Order from ATS \$16.00

ATS-34P62R

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 5,
no. 3, p. 256-263.

DESCRIPTORS: *Spectrographic analysis, *Vibration,
*Boron compounds, *Fluorides, Nitrogen, Oxygen,
Methanols, Ethanols, Water

(Physics--Spectroscopy, TT. v. 9, no. 1)

62-34226

I. Babushkin, A. A.
II. Gribov, L. A.
III. Title: Investigation...
IV. ATS-34P62R
V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3704

Office of Technical Services

Investigation into the Spectra of Electro-
and Photo-Luminescent Phosphors Activated
by Rare Earth Elements, by V. E. Oranovski,
Z. A. Trapeznikova.

RUSSIAN, per, Optika i Spektroskopia, Vol 5,
No 3, 1958, pp 302-306. 9239733
NSTIC TR. NO. 1651

Sci/Earth Sci
Feb 66

294,672

Contribution to the Problem of the Measurement
of the Optical Density of Gas Mixtures and Liquids
by Spectroscopic Methods, by E. O. Sall.

RUSSIAN, per, Optika i Spectroscopiya, Vol V,
No 3, 1948, pp 316-321.

CSIRO

Sci - Phys
Aug 62

211,475

Use of Discharge in a Hollow Cathode for
Determining Impurities in ZrO_2 , by Yu. I.
Korovin, L. V. Lipis, 8 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol V,
1958, pp 334-337.

ABC-tr-5262

Sci - Chem

Jan 63

218,23!

list 74

Ostrovskiy & Penkin

RUSSIAN, per, Optika i Spektroskopia, Vol. V, No. 4,
1958, pp. 345-353.

*PL 480
OTS 61-11437

Dec 61

Rotational Spectrum of H_2O in the 50-1500 μ
(200 - 7 cm^{-1}) Longwave Infrared Band, by
N. G. Yaroslavskiy, A. R. Stanevich. 9 pp.

RUSSIAN, per, Optika i E~~s~~ Spektro, Vol V,
No 4, 1958, pp 384-392.

MDF I-124

9092795

OTS 62-11391

122, 854

Sci

Nov 61

Rozenberg, G. V.
LIGHT DISTRIBUTION INSIDE A WEAKLY ABSORB-
ING, SCATTERING MEDIUM AND SOME PROSPECTS
OF SPECTROSCOPY. [1962] 24p. 18 refs.
Order from OTS or SLA \$2.60 62-18621

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 5,
no. 4, p. 440-449.

DESCRIPTORS: *Optics, Atmosphere, *Light,
Scattering, Polarization, Electromagnetic waves,
*Spectroscopy.

(Physics--Optics, TT, v. 9, no. 6)

62-18621

I. Rozenberg, G. V.

Office of Technical Services

On the Correlative Effects of Two-Electron
Atoms, by D. A. Kirzhnits.
RUSSIAN, per, Optika i Spektroskopiya, Vol
5, No 5, 1958, pp 485-489.
*NASA TT F-12,555

Sci-Phys
Aug 69

On the Measurement of Flame Temperatures by the
Method of the Relative Intensities of Spectral
Lines, by A. P. Dronov, et al.

RUSSIAN, per, Optika i Spektroskopiya, Vol V,
No 5, 1958, p 490-499.

Navy 2264/P-159

Sci - Physics
Aug 59

93,648

Additivity of the Polarisability Tensor and
Polarisabilities of Bonds, by M. F. Vuks.
RUSSIAN, per, Optika i Spektroskopiya, Vol 2,
No 4, 1957, pp 494-501.
NLL RTS 3581

Sci-Chem
Nov 67

345.323

Tatevskii, V. M., Tunitskii, L. N., and
Novikov, M. M.
OSCILLATION CONSTANTS AND THE DISSOCIATION
ENERGY OF THE BeF MOLECULE (Kolebatel'nye
Postoyannye i Energiya Dissotsiatsii Molekuly BeF).
[1962] 16p. 7 refs.
Order from OTS or SLA \$1.60

62-25557

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 5,
no. 5, p. 520-529.

DESCRIPTORS: *Beryllium compounds, *Fluorides,
*Molecules, Oscillation, Dissociation, Energy,
Spectrographic analysis, *Gas discharges.

This work represents a study of the oscillation struc-
ture of lines $A^2\Pi - X^2\Sigma$ of the BeF molecule. Forty-
eight new borders of the Q_1 -beam lines and 54 new
borders of the R_2 and R_1 -beam lines were discovered.
The values of the oscillation constants w_0 and w_0x_0
(Physics--Molecular, TT, v. 9, no. 5) (over)

62-25567

I. Tatevskii, V. M.
II. Tunitskii, L. N.
III. Novikov, M. M.

Office of Technical Services

Quadrupole Coupling, Dipole Moment and Barrier
of Internal Rotation of the CH_3GeH_3 Molecule as
Determined From Its Rotational Spectrum, by A. I.
Barchnikov, A. M. Prokhorov, 4 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol V, No 5,
1958, pp 530-534.

SLA 59-20857

119,123

Sci
Jun 60
Vol III, No 5

Investigation of the Changes of the Rotation-
Vibration Spectrum of Certain Simple Molecules
During Dissolution, by M. O. Bukanin,
N. D. Orlova.
RUSSIAN, per, Optika i Spectroscopiya, Vol 4,
No 5, 1958, pp 569-574.
NASA TT F-11,027

Sci-Phys
Agu 67

338,702

61-12751

Miloslavskiy, V. K. and Kovalenko, N. A.
ABSORPTION BY ZINC OXIDE IN THE INFRARED
REGION OF THE SPECTRUM [Pogloshcheniye
Oksid Tsinka v Infrazhnoy Oblasti Spekttra]. [1960]
4p.

Order from ATS \$8.00

ATS-59M47R

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 5,
no. 5, p. 614-617.

151517

(Physics--Spectroscopy, TT, v. 5, no. 8)

1. Zinc oxides--Absorptive
properties

2. Infrared spectroscopy

I. Miloslavskiy, V. K.

II. Kovalenko, N. A.

III. ATS-59M47R

IV. Associated Technical
Services, Inc., East
Orange, N. J.

ATS/AT-3367

Office of Technical Services

Gerasimov, R. M. and Naumov, S. S.
INTERFEROMETRE A RESEAU CONCAVE DE
DIFFRACTION [Interferometr a Vognutoi Difrak-
sionnoi Reshetkoi] [An Interferometer with a Concave
Diffraction Grating] tr. by Lopoukhin. 27 Dec 60 [11] p.
5 refs. CEA Trans. no. R 1148 (text in French).
Order from OTS or SLA \$1.60 61-19582

Trans. in French of Opt[ika] i Spektrosk[opiya] (USSR)
1958, v. 5, no. 6, p. 682-685.

DESCRIPTORS: *Interferometers, *Diffraction gratings

(Physics--Optics, TT, v. 6, no. 6)

61-19582

- I. Gerasimov, R. M.
- II. Naumov, S. S.
- III. CEA-tr-R1148
- IV. Commissariat à l'Énergie
Atomique (France)

176621

Office of Technical Services

Electronic Absorption Bands of ZnO and TiO₂ in
the Infrared Region of the Spectrum, by V. N.
Filimonov, 3 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol V,
No 6, 1958, pp 709-711.

ATS-24M39R
ATS/RJ-2615

Sci

OTS, Vol IV, No 3

Oct 60

129,443

OPTIKA I SPEKTROSKOPIYA 6 times year 1959 - 1964

COVER - ~~COVER~~: THE OPTICAL SOCIETY OF AMERICA

AVAILABLE LY SERIALS

LOW-Frequency Vibrations in Paraffin Spectra,
by U. A. Zirnitz and H. H. Sushchinskiy,
RUSSIAN, per, Opt. Spektrosk. Akad. Nauk
SSSR, Utd. Fiz. Mat. Nauk, Sb. Statei, Vol
II, 1963, pp 153-154.
AEC LA-tr-66-28

Sci-Chemistr
Nov 66

313,688

The Quantum Yield of Thermoluminescence of CaSO_4 -
Pn Phosphor in the 113-0.0048A Range, by
V. A. Arkhangel'skaya, T. K. Pazunova.
RUSSIAN, per, Optika i Spektroskopiya Sbornik
Statey. Tom I: Lyuminestentsiya, 1963, pp 299-305.
Dept of Navy NRL Trans No 1145

Sci-Phys
Aug 68

365,771

The Quantum Yield of Thermoluminescence of
CaSO₄-Mn Phosphor in the 113-0.0048 μ Range, by
V. A. Arkhangel'skaya, T. K. Razumova.
RUSSIAN, per, Optika i Spektroskopiya, Sbornik
Statey. Tom 1, Luminestsentsiya, 1965,
pp 303-305.
Dept of Navy/NRL Trans No 1141

Sci-Phys
Apr 68

354,979

MD Generators, by N. M. Gidrenko.
RUSSIAN, per, Optimalnye Geometricheskiye
Sootnomeniya v Koaksialnom Lineynom Induktsionnom
MD-Generatore, S/N 107-174, pp 1-21.
~~STD-17-24-173-68~~

Sci/Ener Conv
Aug 68

OPTIMUM METHODS OF SEARCHING IN CONTINUOUS AND
PULSED SYSTEMS OF EXTERNAL CONTROL, BY
A. A. KRASOVSKIY, 18 PP.

RUSSIAN, BK, OPTIMAL'NIYE METODY POLSKA V
NEPRERYVNYKH I IMPUL'SNYKH SISTEMAKH EKSTREMAL'
NOGO REGULIROVANI AK NAUK SSSR, 18 PP.
9677333

FTD-TT-62-747

SCI-PHYS
10 JUL 62

202,266